

Financial decision-making ability and subjective cognitive decline in older adults: ARMCADA Project

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*Emily H. Ho¹, Berivan Ece¹, Patricia Bucko¹, Y. Catherine Han¹, Elizabeth M. Dworak¹, Shahin Davoudpour¹, Sarah Pila¹, S. Duke Han², Peter Lichtenberg³, Sandra Weintraub^{4,5}, and Richard Gershon¹

¹Department of Medical Social Sciences, Northwestern University Feinberg School of Medicine, Chicago, IL ²Department of Psychology, University of Southern California, Los Angeles, CA ³Institute of Gerontology, Wayne State University, Detroit, MI ⁴Department of Psychiatry and Behavioral Sciences, Northwestern University Feinberg School of Medicine, Chicago, IL ⁵Mesulam Institute for Cognitive Neurology and Alzheimer’s Disease, Northwestern University Feinberg School of Medicine, Chicago, IL

BRIEF, EASILY ADMINISTERED FINANCIAL DECISION-MAKING MEASURES CAN HELP IDENTIFY INDIVIDUALS WITH GREATER FINANCIAL VULNERABILITY AND SUBJECTIVE COGNITIVE CONCERNS, HIGHLIGHTING THEIR PROMISE AS EARLY INDICATORS OF COGNITIVE DECLINE AND DEMENTIA-RELATED RISK.

INTRODUCTION	METHODS	RESULTS	RESULTS (CONT.)	REFERENCES																														
✓ Financial decision-making (FDM) is the ability to independently manage finances by evaluating options that align with personal values and interests, while avoiding errors or loss.¹ ✓ Well-validated FDM assessment tools are critical for detecting subtle functional changes linked to early neurodegeneration and for distinguishing normal aging from cognitive loss caused by Alzheimer’s disease and related dementias (AD/ADRD). ✓ The ARMCADA (Advancing Reliable Measurement in Cognitive Aging and Decision-making Ability) project identified FDM measures with high potential to be included in a multidomain DM battery for adults (45+). ✓ We evaluate the feasibility and reliability of these measures and examine their associations with self-reported subjective cognitive decline (SCD) and behavioral measures of vulnerability to financial fraud. ARMCADA Advancing Reliable Measurement in Cognitive Aging and Decision-Making Ability Financial Decisions Assessing Decision-Making in Aging to Predict Cognitive Changes Emotional & Non-Cognitive Healthcare Decisions Functional Outcomes	✓ This pilot study included 152 adults over 40 (61.8% participants aged 60 and above; 59.9% female) from rural (20.4%), suburban (57.9%), and urban (20.4%) regions in the United States. ✓ Participants completed measures assessing FDM (Table 1) along with: ✓ Measures of SCD (Everyday Cognition Scale [Ecog-12]²; Memory Complaint Scale [MCS]) ✓ PROMIS depression, anxiety, and social isolation scales ✓ Contextual financial questions Table 1. FDM Measures used in Pilot <table><tr><th colspan="2">Financial Decision-making (FDM) Measures</th></tr><tr><th>Measure</th><th>Construct</th></tr><tr><td>Coherence Forecasting Scale (CFS)³</td><td>Reasoning, Consistency</td></tr><tr><td>Blind Giving (DG)⁴</td><td>Altruism</td></tr><tr><td>Financial Exploitation Vulnerability Scale (FEVS)⁵</td><td>Exploitation Vulnerability</td></tr><tr><td>Financial Literacy (FL)⁶</td><td>Literacy</td></tr><tr><td>Financial Security Scale (FSS)⁷</td><td>Perceived Financial Wellbeing</td></tr><tr><td>Identifying Phishing Scenarios (IPS)⁸</td><td>Exploitation Vulnerability</td></tr><tr><td>Subjective Numeracy Scale (SNS)⁹</td><td>Numeracy</td></tr><tr><td>Berlin Numeracy Test (BNT)¹⁰</td><td>Numeracy</td></tr><tr><td>Financial Homo-Ignorans Scale (FHI)¹¹</td><td>Information Avoidance</td></tr><tr><td>Scam Susceptibility Scale (SSS)¹²</td><td>Exploitation Vulnerability</td></tr><tr><td>Federal Trade Commission (FTC) Phishing Quiz¹³ (PQ)</td><td>Literacy, Exploitation Vulnerability</td></tr><tr><td>Test of Practical Judgment (TOP-J; Financial Item)¹⁴</td><td>Judgement</td></tr><tr><td>Self-authored Phishing Questions (PQ-self)</td><td>Exploitation Vulnerability</td></tr></table>	Financial Decision-making (FDM) Measures		Measure	Construct	Coherence Forecasting Scale (CFS) ³	Reasoning, Consistency	Blind Giving (DG) ⁴	Altruism	Financial Exploitation Vulnerability Scale (FEVS) ⁵	Exploitation Vulnerability	Financial Literacy (FL) ⁶	Literacy	Financial Security Scale (FSS) ⁷	Perceived Financial Wellbeing	Identifying Phishing Scenarios (IPS) ⁸	Exploitation Vulnerability	Subjective Numeracy Scale (SNS) ⁹	Numeracy	Berlin Numeracy Test (BNT) ¹⁰	Numeracy	Financial Homo-Ignorans Scale (FHI) ¹¹	Information Avoidance	Scam Susceptibility Scale (SSS) ¹²	Exploitation Vulnerability	Federal Trade Commission (FTC) Phishing Quiz ¹³ (PQ)	Literacy, Exploitation Vulnerability	Test of Practical Judgment (TOP-J; Financial Item) ¹⁴	Judgement	Self-authored Phishing Questions (PQ-self)	Exploitation Vulnerability	✓ Feasibility: >97% completion; <1–3 min/measure. ✓ Reliability: α/KR-20 = .48–.91. Figure 1. Correlations between FDM measures	Figure 2. FDM relation with SCD	1 Chiong, W., Hsu, M., Wudka, D., Miller, B. L., & Rosen, H. J. (2014). Financial errors in dementia: testing a neuroeconomic conceptual framework. <i>Neurocase</i>, 20(4), 389–396. https://doi.org/10.1080/13554794.2013.770886 2 Tomaszewski Farias, S., Mungas, D., Harvey, D. J., Simmons, A., Reed, B. R., & Decarli, C. (2011). The measurement of everyday cognition: development and validation of a short form of the Everyday Cognition scales. <i>Alzheimer's & dementia : the journal of the Alzheimer's Association</i>, 7(6), 593–601. https://doi.org/10.1016/j.jalz.2011.02.007 3 Ho, E. H., Budescu, D. V., & Himmelstein, M. (2025). Measuring probabilistic coherence to identify superior forecasters. <i>International Journal of Forecasting</i>, 41(2), 596–612. https://doi.org/10.1016/j.ijforecast.2024.02.005 4 Forsythe, R., Horowitz, J. L., Savin, N. E., & Sefton, M. (1994). 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